

REMARKS

I. Introduction

In response to the Office Action dated January 6, 2005, claims 1, 8, 11, 18, 21 and 28 have been amended. Claims 1-30 remain in the application. Re-examination and re-consideration of the application, as amended, is requested.

II. Claim Amendments

Applicants' attorney has made amendments to the claims as indicated above. These amendments were made solely for the purpose of clarifying the language of the claims, and were not required for patentability or to distinguish the claims over the prior art.

III. Information Disclosure Statement

Applicants' attorney submitted an Information Disclosure Statement (IDS) on October 16, 2001, a copy of which is attached hereto (including the stamped postcard indicating receipt of the IDS by the Office). However, the initialed Form PTO-1449 has not been received from the Office. Applicants' attorney requests that the Office initial the Form PTO-1449 and return it to Applicants' attorney.

IV. Specification Objections

In paragraph 3 of the Office Action, the specification was objected to because of the failure to use "I (or we) claim," etc.

Applicants' attorney has amended the specification to overcome this objection.

In paragraph 4 of the Office Action, the Abstract was objected to because of the inclusion of "(Figure 8)."

Applicants' attorney has amended the Abstract to overcome this objection.

V. Prior Art Rejections

A. The Office Action Rejections

In paragraph 5 of the Office Action, claims 1-2, 4-9, 11-12, 14-19, 21-22, 24-29 were rejected under 35 U.S.C. §103(a) as being unpatentable over Sen et al., U.S. Patent No. 6,691,312 (Sen) in view of Aharoni et al., U.S. Patent No. 6,014,694 (Aharoni). In paragraph 6 of the Office Action, claims 3, 13 and 23 were rejected under 35 U.S.C. §103(a) as being unpatentable over Sen in view of

Hazra, U.S. Patent No. 6,510,553 (Hazra). In paragraph 7 of the Office Action, claims 10, 20 and 30 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Sen in view of Tremblay et al., U.S. Patent No. 6,343,348 (Tremblay).

Applicants' attorney respectfully traverses the rejections in light of the amendments above and the arguments below.

B. The Sen Reference

Sen describes a method of multicasting video to multiple client nodes via intermediate nodes that includes accessing video information descriptive of the video to be multicast, accessing information describing a distribution tree of nodes from a source of the video to the multiple clients nodes via one or more internetwork nodes, accessing rate constraints of nodes in the distribution tree, accessing buffer allocations of the nodes in the distribution tree, and determining one or more smoothed transmission schedules for each node in the distribution tree based on the accessed video information, the accessed information describing the distribution tree, the accessed rate constraints of nodes in the distribution tree, and the accessed buffer allocations of the nodes in the distribution tree, the one or more transmission schedules describing the transmission of video data to one or more children nodes.

C. The Aharoni Reference

Aharoni describes a system for adaptively transporting video over networks wherein the available bandwidth varies with time. The system comprises a video/audio code that functions to compress, code, decode and decompress video streams that are transmitted over networks having available bandwidths that vary with time and location. Depending on the channel bandwidth, the system adjusts the compression ratio to accommodate a plurality of bandwidths ranging from 20 Kbps for POTS to several Mbps for switched LAN and ATM environments. Bandwidth adjustability is provided by offering a trade off between video resolution, frame rate and individual frame quality. The system generates a video data stream comprised of Key, P and B frames from a raw source of video. Each frame type is further comprised of multiple levels of data representing varying degrees of quality. In addition, several video server platforms can be utilized in tandem to transmit video/audio information with each video server platform transmitting information for a single compression/resolution level.

D. The Hazra Reference

Hazra describes reception of digital multimedia data signals from multiple sources in a stream over a fixed bandwidth communications path may be accomplished by subscribing to a base layer of a first source and a base layer of a second source, and subscribing to an enhancement layer of the first source. Data signals corresponding to the subscribed layers of the first and second sources may be received in a stream over the fixed bandwidth communications path, output signals may be produced which correspond to the received data signals for the first source, and output signals may be produced corresponding to the received data signals for the second source. The output signals for the first source may be displayed in a first portion or window of a display, and output signals for the second source may be simultaneously displayed in a second portion or window of the display, thereby providing a picture-in-picture (PIP) display for streaming digital video.

E. The Tremblay Reference

Tremblay describes a multi-ported register file is typically metal limited to the area consumed by the circuit proportional with the square of the number of ports. A processor having a register file structure divided into a plurality of separate and independent register files forms a layout structure with an improved layout efficiency. The read ports of the total register file structure are allocated among the separate and individual register files. Each of the separate and individual register files has write ports that correspond to the total number of write ports in the total register file structure. Writes are fully broadcast so that all of the separate and individual register files are coherent.

F. The Applicants' Invention is Patentable Over the References

The Applicants' invention, as recited in independent claims 1, 8, 11, 18, 21 and 28, is patentable over the references, because the claims recite limitations not shown by the references.

Specifically, with regard to claims 1, 11 and 21, none of the above references teach or suggest "displaying selected frames from said frame source, on said display means, at their due time in order to maintain timing integrity of the clip." Moreover, none of the above references teach or suggest performing such a function while "skipping frames in said frame sequence in response to an indication of the data transfer rate of said network."

Similarly, with regard to claims 8, 18 and 28, none of the above references teach or suggest "selecting a next frame for preloading by skipping at least one frame in the clip's frame sequence,"

“preloading a frame from said frame source into a frame queue in said memory means,” “displaying a preloaded frame at its due time in order to maintain timing integrity of the clip,” “processing elapsed real time since the clip started playing with a frame timing parameter,” and “updating the number of frames to skip in response to said processing of elapsed real time.”

Indeed, nowhere do any of the references indicate that they recognize the concept of displaying frames at their due time in order to maintain timing integrity of the clip.

In contrast, Sen merely describes a method of multicasting video to multiple client nodes via intermediate nodes that includes smoothed transmission schedules, Aharoni merely describes adaptively transporting video over networks where the available bandwidth varies with time, Hazra merely describes providing a picture-in-picture (PIP) display for streaming digital video, and Tremblay merely describes a multi-ported register file.

Moreover, the various elements of Applicants' claimed invention together provide operational advantages over Sen, Aharoni, Hazra and Tremblay. In addition, Applicants' invention solves problems not recognized by Sen, Aharoni, Hazra and Tremblay.

In the Applicants' invention, when the user previews clips on the player, frames are always displayed at their correct time, and this is achieved by skipping some frames when this becomes necessary. Regardless of the data capacity of the network, a clip having a duration of one minute will always complete playback in one minute. The user will therefore see all actions portrayed in the clip take place with their timing preserved. A loss of network bandwidth availability will only result in a degradation in smoothness of action, not a modification of the rate at which the recorded events unfold. None of the references teach or suggest a similar set of functions.

Thus, Applicants' attorney submit that independent claims 1, 8, 11, 18, 21 and 28 are allowable over Sen, Aharoni, Hazra and Tremblay. Further, dependent claims 2-7, 9-10, 12-17, 19-20, 22-27, 29 and 30 are submitted to be allowable over Sen, Aharoni, Hazra and Tremblay in the same manner, because they are dependent on independent claims 1, 8, 11, 18, 21 and 28, respectively, and thus contain all the limitations of the independent claims. In addition, dependent claims 2-7, 9-10, 12-17, 19-20, 22-27, 29 and 30 recite additional novel elements not shown by Sen, Aharoni, Hazra and Tremblay.

VI. Conclusion

In view of the above, it is submitted that this application is now in good order for allowance and such allowance is respectfully solicited.

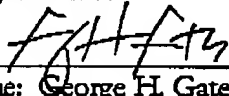
Should the Examiner believe minor matters still remain that can be resolved in a telephone interview, the Examiner is urged to call Applicants' undersigned attorney.

Respectfully submitted,

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